In the Specification

Please replace paragraphs [0055] and [0056], from the bottom of page 17 to the top of page 19, with the following:

[0055] To better illustrate the characteristics of the shallow retrograde p-well 180, reference is now made to Figure 13c, which depicts the concentration of boron (B) atoms per surface area of the shallow retrograde p-well 180 as a function of the implantation depth. As shown in Figure 13c, the shallow retrograde p-well 180 has a vertically graded dopant concentration that is lowest at the substrate surface 117, and highest at the bottom of the well. The dopant concentration C_3s (Figure 13c) at the top of the shallow retrograde p-well 180, that is at the surface level S (Figure 13c), is within the range of about 5×10^{14} to about 1×10^{18} atoms per cm^3, and is preferably within the range of about 1×10^{16} to about 1×10^{17} atoms per cm^3, and most preferably is about 4×10^{16} atoms per cm^3. At the bottom of the shallow retrograde p-well 180, that is, at depth D_3 (Figure 13c), the dopant concentration C_3max (Figure 13c) is within the range of about 2×10^{16} to about 1×10^{18} atoms per cm^3, and is preferably within the range of about 2×10^{16} to about 1×10^{18} atoms per cm^3, and most preferably is about 1×10^{17} atoms per cm^3. The single deep retrograde p-well ~~16060~~ spans only red pixel cell 152 (Figure 12) of the color pixel cell group 100 (Figure 12). The single shallow retrograde p-well 180 spans only green pixel cell 156 (Figure 12) of the color pixel cell group 100, as depicted in Figure 12.

[0056] The three red, blue and green pixel cells 152, 154 and 156 form a color pixel cell group 100, as schematically represented in Figure 12. Each of the red, blue and green pixel cells 152, 154 and 156 includes a reset transistor 131a, 131b and 131c, respectively, and a charge transfer transistor 129a, 129b and 129c. Each cell is also associated with two additional n-channel transistors: a source-follower transistor 136a, 136b, and 136c, and a row select transistor 138a, 138b and 138c, respectively. As shown in Figure 12, the reset transistor 131a of the red pixel cell 152 is formed by reset gate 132a and n+ regions 130a and 134a, which are formed within the deep retrograde p-well 160. Similarly, the reset transistor 131b of the blue pixel cell 154 (Figure 12) is formed by reset

gate 132b and n+ regions 130b and 134b, which are formed within the shallow p-well 170. The reset transistor 131c of the green pixel cell 156 (Figure 12) is formed by reset gate 132c and n+ regions 130c and 134c, which are formed within the shallow retrograde p-well 180. Likewise, the charge transfer transistor 129a of the red pixel cell 152 is formed by charge transfer gate 128a and n+ regions 126a and 130a, which are formed within the deep retrograde p-well 160. The charge transfer transistor 129b of the blue pixel cell 154 is formed by charge transfer gate 128b and n+ regions 126b and 130b, which are formed within the shallow p-well 170. The charge transfer transistor 129c of the green pixel cell 156 is formed by charge transfer gate 128c and n+ regions 126c and 130c, which are formed within the ~~the~~ shallow p-well 170. The concentrations of boron implants as a function of the implantation depth for each of the deep retrograde p-well 160, the shallow p-well 170, and the shallow p-well 170, respectively, are schematically illustrated in Figures 13a-13c.